

## ABSTRACT OF THE DISCLOSURE

In a method for improving the color reproducibility of printed matter to be produced by a printing press in proof print produced by a proof press, a look-up table containing converted values of image data over the entire color space with respect to the proof press is created, the look-up table is corrected based on the color of a printing paper for the printing press and a paper exposed area factor in the proofing, and proof print is created by the use of the corrected look-up table.

Furthermore, proof printing image data, in which each of levels of monochromatic color gradation of black on the printed matter is represented on the proof print, out of the proof printing image data over the entire color space in a subtractive process resulting from color matching between proof print by the proof press and the printed matter by means of the printing press is corrected in such a manner that a part having a black ink area factor of 100% on the printed matter is represented only with black ink also on the proof print, but that a part other than the part having a black ink area factor of 100% on the printed matter is represented on the proof print by using under color removal, so that the representing characteristics of the black ink on the printed matter are reproduced on the proof print.